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SEQUENCE LISTING

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<120> USE OF MICROPARTICLES FOR ANTIGEN DELIVERY

<130> 50318/012001

<150> PCT/EP2004/012421

<151> 2004-11-03

<150> GB 0325624.5

<151> 2003-11-03

<160> 55

<170> PatentIn version 3.3

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<212> DNA

<213> Human immunodeficiency virus

<220>

<221> CDS

<222> (1)..(309)

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atg gag cca gta gat cct cgt cta gag ccc tgg aag cat cca gga agt
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

48

cag cct aaa act gct acc aat tgc tat tgt aaa aag tgt tgc ttt
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Cys Cys Phe
20 25 30

96

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tac ggc
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

144

agg aag aag cgg aga cag cgt cga aga cct cct caa ggc agt cag act
Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

192

cat caa gtt tct cta tca aag caa ccc acc tcc caa tcc cga ggg gac
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

240

ccg aca ggc ccg aag gaa cag aag aag gtg gag aga gag aca gag
Pro Thr Gly Pro Lys Glu Gln Lys Lys Val Glu Arg Glu Thr Glu
85 90 95

288

aca gat ccg gtc cat cag tga 309
Thr Asp Pro Val His Gln
100

<210> 2
<211> 102
<212> PRT
<213> Human immunodeficiency virus

<400> 2

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu Gln Lys Lys Val Glu Arg Glu Thr Glu
85 90 95

Thr Asp Pro Val His Gln
100

<210> 3
<211> 261
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)..(261)

<400> 3
atg gag cca gta gat cct cgt cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96

<210> 4
<211> 86
<212> PRT
<213> Human immunodeficiency virus

<400> 4

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

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<213> Human immunodeficiency virus
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<220>
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<222> (1)..(261)

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Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct ggt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 6
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<213> Human immunodeficiency virus

<400> 6

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
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<211> 261
<212> DNA
<213> Human immunodeficiency virus

<220>
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<222> (1)..(261)

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Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca gct gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 8
<211> 86
<212> PRT
<213> Human immunodeficiency virus

<400> 8

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 9
<211> 252
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)..(252)

<400> 9
atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

ccg aag gaa tag 252
Pro Lys Glu

<210> 10
<211> 83
<212> PRT
<213> Human immunodeficiency virus

<400> 10

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

Pro Lys Glu

<210> 11
<211> 252
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)...(252)

<400> 11
atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca gct gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

ccg aag gaa tag 252
Pro Lys Glu

<210> 12
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 <212> PRT
 <213> Human immunodeficiency virus

<400> 12

Met	Glu	Pro	Val	Asp	Pro	Arg	Leu	Glu	Pro	Trp	Lys	His	Pro	Gly	Ser
1								5			10				15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30

His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly
 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
 50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
 65 70 75 80

Pro Lys Glu

<210> 13
 <211> 306
 <212> DNA
 <213> Human immunodeficiency virus

<220>
 <221> CDS
 <222> (1)..(306)

<400> 13

atg	gat	cca	gtt	aat	cct	aac	cta	gag	ccc	tgg	aat	cat	ccg	gga	agt	48
Met	Asp	Pro	Val	Asp	Pro	Asn	Leu	Glu	Pro	Trp	Asn	His	Pro	Gly	Ser	
1								5			10				15	

cag cct aca act gct aac aag tgt tac tgt aaa aag tgt tgc tat
 Gln Pro Thr Thr Ala Cys Asn Lys Cys Tyr Cys Lys Cys Cys Tyr
 20 25 30 96

cat tgc caa gtt tgc ttt ctg aac aaa ggc tta ggc atc tcc tat ggc
 His Cys Gln Val Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser Tyr Gly
 35 40 45 144

agg aag aag cgg aga cag cga cga gga act cct cag agc agt aag gat		192	
Arg Lys Lys Arg Arg Gln Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp			
50	55	60	
cat caa aat cct ata cca aag caa ccc ata ccc caa acc caa ggg gtc		240	
His Gln Asn Pro Ile Pro Lys Gln Pro Ile Pro Gln Thr Gln Gly Val			
65	70	75	80
tcg aca ggc ccg gaa gaa tcg aag aag gtg gag agc aag gca gag		288	
Ser Thr Gly Pro Glu Glu Ser Lys Lys Val Glu Ser Lys Ala Glu			
85	90	95	
aca gat cga ttc gat tag		306	
Thr Asp Arg Phe Asp			
100			
<210> 14			
<211> 101			
<212> PRT			
<213> Human immunodeficiency virus			
<400> 14			
Met Asp Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser			
1	5	10	15
Gln Pro Thr Thr Ala Cys Asn Lys Cys Tyr Cys Lys Lys Cys Cys Tyr			
20	25	30	
His Cys Gln Val Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser Tyr Gly			
35	40	45	
Arg Lys Lys Arg Arg Gln Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp			
50	55	60	
His Gln Asn Pro Ile Pro Lys Gln Pro Ile Pro Gln Thr Gln Gly Val			
65	70	75	80
Ser Thr Gly Pro Glu Glu Ser Lys Lys Val Glu Ser Lys Ala Glu			
85	90	95	
Thr Asp Arg Phe Asp			
100			
<210> 15			
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<212> DNA			
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<220>
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cag cct aag act gct acc aat tgc tat tgt aaa aag tgt tgc ttt Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe 20 25 30	96
cat tgc caa gtt tgt ttc ata aca aaa ggc tta ggc atc tcc tat ggc His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly 35 40 45	144
agg aag aag cgg aga cag cga aga gct cct caa gac agt cag act Arg Lys Lys Arg Arg Gln Arg Arg Ala Pro Gln Asp Ser Gln Thr 50 55 60	192
cat caa gtt tct cta tca aag caa ccc gcc tcc cag ccc cga ggg gac His Gln Val Ser Leu Ser Lys Gln Pro Ala Ser Gln Pro Arg Gly Asp 65 70 75 80	240
ccg aca ggc ccg aag gaa tcg aag aag gtg gag aga gag aca gag Pro Thr Gly Pro Lys Glu Ser Lys Lys Val Glu Arg Glu Thr Glu 85 90 95	288
aca gat ccg gtc gat tag Thr Asp Pro Val Asp 100	306

<210> 16
 <211> 101
 <212> PRT
 <213> Human immunodeficiency virus

<400> 16
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser 1 5 10 15
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe 20 25 30
His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly 35 40 45
Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Pro Gln Asp Ser Gln Thr 50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Ala Ser Gln Pro Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu Ser Lys Lys Val Glu Arg Glu Thr Glu
85 90 95

Thr Asp Pro Val Asp
100

<210> 17
<211> 306
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)..(306)

<400> 17
atg gag cca gta gat cct aac cta gag ccc tgg aac cat cca gga agt 48
Met Glu Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt aat aag tgt tat tgt aaa cac tgt agc tat 96
Gln Pro Lys Thr Ala Cys Asn Lys Cys Tyr Cys Lys His Cys Ser Tyr
20 25 30

cat tgt cta gtt tgc ttt cag aca aaa ggc tta ggc att tcc tat ggc 144
His Cys Leu Val Cys Phe Gln Thr Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga agc gct cct cca agc agt gag gat 192
Arg Lys Lys Arg Arg Gln Arg Arg Ser Ala Pro Pro Ser Ser Glu Asp
50 55 60

cat caa aat ctt ata tca aag caa ccc tta ccc caa acc caa ggg gac 240
His Gln Asn Leu Ile Ser Lys Gln Pro Leu Pro Gln Thr Gln Gly Asp
65 70 75 80

ccg aca ggc tcg gaa gaa tcg aag aag gtg gag agc aag aca gag 288
Pro Thr Gly Ser Glu Glu Ser Lys Lys Lys Val Glu Ser Lys Thr Glu
85 90 95

aca gat cca ttc gat tag 306
Thr Asp Pro Phe Asp
100

<210> 18
<211> 101
<212> PRT
<213> Human immunodeficiency virus

<400> 18

Met Glu Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Asn Lys Cys Tyr Cys Lys His Cys Ser Tyr
20 25 30

His Cys Leu Val Cys Phe Gln Thr Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Ser Ala Pro Pro Ser Ser Glu Asp
50 55 60

His Gln Asn Leu Ile Ser Lys Gln Pro Leu Pro Gln Thr Gln Gly Asp
65 70 75 80

Pro Thr Gly Ser Glu Glu Ser Lys Lys Lys Val Glu Ser Lys Thr Glu
85 90 95

Thr Asp Pro Phe Asp
100

<210> 19

<211> 261

<212> DNA

<213> Human immunodeficiency virus

<220>

<221> CDS

<222> (1)..(261)

<400> 19

atg gat cca gta gat cct aac cta gag ccc tgg aac cat cca gga agt 48
Met Asp Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

cag cct agg act cct tgt aac aag tgt tat tgt aaa aag tgt tgc tat 96
Gln Pro Arg Thr Pro Cys Asn Lys Cys Tyr Cys Lys Cys Cys Tyr
20 25 30

cat tgc caa gtt tgc ttc ata acg aaa ggc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc ggt cag gct 192
Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Gly Gln Ala
50 55 60

cat caa gat cct ata cca aag caa ccc tcc tcc cag ccc cga ggg gac 240
His Gln Asp Pro Ile Pro Lys Gln Pro Ser Ser Gln Pro Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 20
<211> 86
<212> PRT
<213> Human immunodeficiency virus

<400> 20

Met Asp Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

Gln Pro Arg Thr Pro Cys Asn Lys Cys Tyr Cys Lys Lys Cys Cys Tyr
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Pro Pro Gln Gly Gly Gln Ala
50 55 60

His Gln Asp Pro Ile Pro Lys Gln Pro Ser Ser Gln Pro Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 21
<211> 306
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)..(306)

<400> 21
atg gaa cta gta gat cct aac tta gat ccc tgg aac cat cca gga agc 48
Met Glu Leu Val Asp Pro Asn Leu Asp Pro Trp Asn His Pro Gly Ser
1 5 10 15

cag cct aca act cct tgt acc aaa tgc tat tgt aaa agg tgt tgc ttt 96

<210> 22
<211> 101
<212> PRT
<213> Human immunodeficiency virus

<400> 22

Met Glu Leu Val Asp Pro Asn Leu Asp Pro Trp Asn His Pro Gly Ser
 1 5 10 15

Gln Pro Thr Thr Pro Cys Thr Lys Cys Tyr Cys Lys Arg Cys Cys Phe
20 25 30

His Cys Gln Trp Cys Phe Thr Thr Lys Gly Leu Gly Ile Ser Tyr Gly
 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Thr Pro Gln Ser Ser Gln Ile
50 55 60

His Gln Asp Pro Val Pro Lys Gln Pro Leu Ser Gln Ala Arg Gly Asn
65 70 75 80

Pro Thr Gly Pro Lys Glu Ser Lys Lys Glu Val Glu Ser Lys Ala Lys
85 90 95

Thr Asp Pro Cys Asp
100

<210> 23
 <211> 306
 <212> DNA
 <213> Human immunodeficiency virus

<220>
 <221> CDS
 <222> (1)..(306)

<400> 23

atg gac ccg gta gat cct aac cta gag ccc tgg aat cat ccg	ggg agt	48
Met Asp Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro	Gly Ser	
1	5	10
		15

cag cct aaa act ccc tgt aac aaa tgt tat tgt aaa atg tgt	tgc tgg	96
Gln Pro Lys Thr Pro Cys Asn Lys Cys Tyr Cys Lys Met Cys	Cys Trp	
20	25	30

cat tgt caa gtt tgc ttt ctg aac aaa ggc tta ggc atc tcc	tat ggc	144
His Cys Gln Val Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser	Tyr Gly	
35	40	45

agg aag aag cgg aag cac cga cga gga act cct cag agc	agt aag gat	192
Arg Lys Arg Lys His Arg Arg Gly Thr Pro Gln Ser Ser Lys	Asp	
50	55	60

cat caa aat cct gta cca aag caa ccc tta ccc acc acc	aga ggg aac	240
His Gln Asn Pro Val Pro Lys Gln Pro Leu Pro Thr Thr Arg	Gly Asn	
65	70	75
		80

ccg aca ggc ccg aag gaa tcg aag aag gag gtg gag agc	aag aca gag	288
Pro Thr Gly Pro Lys Glu Ser Lys Lys Glu Val Glu Ser	Lys Thr Glu	
85	90	95

aca gat cca ttc gat tag		306
Thr Asp Pro Phe Asp		
100		

<210> 24
 <211> 101
 <212> PRT
 <213> Human immunodeficiency virus

<400> 24

Met Asp Pro Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro	Gly Ser	
1	5	10
		15

Gln Pro Lys Thr Pro Cys Asn Lys Cys Tyr Cys Lys Met Cys	Cys Trp	
20	25	30

His Cys Gln Val Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Lys His Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp
50 55 60

His Gln Asn Pro Val Pro Lys Gln Pro Leu Pro Thr Thr Arg Gly Asn
65 70 75 80

Pro Thr Gly Pro Lys Glu Ser Lys Lys Glu Val Glu Ser Lys Thr Glu
85 90 95

Thr Asp Pro Phe Asp
100

<210> 25

<211> 261

<212> DNA

<213> Human immunodeficiency virus

<220>

<221> CDS

<222> (1)..(261)

<400> 25

atg gac cca gta gat cct aac caa gag ccc tgg aac cat cca gga agt 48
Met Asp Pro Val Asp Pro Asn Gln Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt aac aat tgt tat tgt aaa aag tgc tgc tat 96
Gln Pro Lys Thr Ala Cys Asn Asn Cys Tyr Cys Lys Lys Cys Cys Tyr
20 25 30

cat tgc caa ttg tgc ttt tta aag aaa ggc tta ggc att tcc tat ggc 144
His Cys Gln Leu Cys Phe Leu Lys Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg agc cag cga cga gga act cct gca agt ttg caa gat 192
Arg Lys Lys Arg Ser Gln Arg Arg Gly Thr Pro Ala Ser Leu Gln Asp
50 55 60

cat caa aat cct ata cca aag caa ccc tta tcc cga acc cgc ggg gac 240
His Gln Asn Pro Ile Pro Lys Gln Pro Leu Ser Arg Thr Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 26

<211> 86
<212> PRT
<213> Human immunodeficiency virus

<400> 26

Met Asp Pro Val Asp Pro Asn Gln Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Asn Asn Cys Tyr Cys Lys Lys Cys Cys Tyr
20 25 30

His Cys Gln Leu Cys Phe Leu Lys Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Ser Gln Arg Arg Gly Thr Pro Ala Ser Leu Gln Asp
50 55 60

His Gln Asn Pro Ile Pro Lys Gln Pro Leu Ser Arg Thr Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 27
<211> 306
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)...(306)

<400> 27
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Met Glu Leu Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

cag cct aca act gct tgt aag tgt tac tgt aaa ata tgt tgc tgg 96
Gln Pro Thr Thr Ala Cys Ser Lys Cys Tyr Cys Lys Ile Cys Cys Trp
20 25 30

cat tgc caa cta tgc ttt ctg aaa aaa ggc tta ggc atc tcc tat ggc 144
His Cys Gln Leu Cys Phe Leu Lys Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aag cac cga cga gga act cct cag agc agt aag gat 192
Arg Lys Lys Arg Lys His Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp
50 55 60

cat caa aat cct ata cca gag caa ccc cta ccc atc atc aga ggg aac 240
His Gln Asn Pro Ile Pro Glu Gln Pro Leu Pro Ile Ile Arg Gly Asn
65 70 75 80

ccg aca gac ccg aaa gaa tcg aag aag gag gtg gcg agc aag gca gag 288
Pro Thr Asp Pro Lys Glu Ser Lys Lys Glu Val Ala Ser Lys Ala Glu
85 90 95

aca gat ccg tgc gat tag 306
Thr Asp Pro Cys Asp
100

<210> 28
<211> 101
<212> PRT
<213> Human immunodeficiency virus

<400> 28

Met Glu Leu Val Asp Pro Asn Leu Glu Pro Trp Asn His Pro Gly Ser
1 5 10 15

Gln Pro Thr Thr Ala Cys Ser Lys Cys Tyr Cys Lys Ile Cys Cys Trp
20 25 30

His Cys Gln Leu Cys Phe Leu Lys Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Lys His Arg Arg Gly Thr Pro Gln Ser Ser Lys Asp
50 55 60

His Gln Asn Pro Ile Pro Glu Gln Pro Leu Pro Ile Ile Arg Gly Asn
65 70 75 80

Pro Thr Asp Pro Lys Glu Ser Lys Lys Glu Val Ala Ser Lys Ala Glu
85 90 95

Thr Asp Pro Cys Asp
100

<210> 29
<211> 306
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)...(306)

<400> 29
 atg gag ccg gta gat cct agc cta gag ccc tgg aac cac ccg gga agt 48
 Met Glu Pro Val Asp Pro Ser Leu Glu Pro Trp Asn His Pro Gly Ser
 1 5 10 15

 cag cct aca act gct tgt agc aat tgt tac tgt aaa atg tgc tgc tgg 96
 Gln Pro Thr Thr Ala Cys Ser Asn Cys Tyr Cys Lys Met Cys Cys Trp
 20 25 30

 cat tgc caa ttg tgc ttt ctg aac aag ggc tta ggc atc tcc tat ggc 144
 His Cys Gln Leu Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser Tyr Gly
 35 40 45

 agg aag aag cgg aga cgc cga gga act cct cag agc cgt cag gat 192
 Arg Lys Lys Arg Arg Arg Arg Gly Thr Pro Gln Ser Arg Gln Asp
 50 55 60

 cat caa aat cct gta cca aag caa ccc tta ccc acc acc aga ggg aac 240
 His Gln Asn Pro Val Pro Lys Gln Pro Leu Pro Thr Thr Arg Gly Asn
 65 70 75 80

 ccg aca ggc ccg aaa gaa tcg aag aag gag gtg gcg agc aag aca gag 288
 Pro Thr Gly Pro Lys Glu Ser Lys Lys Glu Val Ala Ser Lys Thr Glu
 85 90 95

 aca gat ccg tgc gat tag 306
 Thr Asp Pro Cys Asp
 100

<210> 30
 <211> 101
 <212> PRT
 <213> Human immunodeficiency virus

<400> 30

 Met Glu Pro Val Asp Pro Ser Leu Glu Pro Trp Asn His Pro Gly Ser
 1 5 10 15

 Gln Pro Thr Thr Ala Cys Ser Asn Cys Tyr Cys Lys Met Cys Cys Trp
 20 25 30

 His Cys Gln Leu Cys Phe Leu Asn Lys Gly Leu Gly Ile Ser Tyr Gly
 35 40 45

 Arg Lys Lys Arg Arg Arg Arg Gly Thr Pro Gln Ser Arg Gln Asp
 50 55 60

 His Gln Asn Pro Val Pro Lys Gln Pro Leu Pro Thr Thr Arg Gly Asn
 65 70 75 80

Pro Thr Gly Pro Lys Glu Ser Lys Lys Glu Val Ala Ser Lys Thr Glu
85 90 95

Thr Asp Pro Cys Asp
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<210> 31
<211> 348
<212> DNA
<213> Human immunodeficiency virus

<220>
<221> CDS
<222> (1)...(348)

<400> 31
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Met Asp Pro Val Asp Pro Glu Met Pro Pro Trp His His Pro Gly Ser
1 5 10 15

cag ccc cag acc cct tgt aat aag tgc tat tgc aaa aga tgc tgc tat 96
Gln Pro Gln Thr Pro Cys Asn Lys Cys Tyr Cys Lys Arg Cys Cys Tyr
20 25 30

cat tgc tat gtt tgt ttt gca agc aag ggt ttg gga atc tcc tat ggc 144
His Cys Tyr Val Cys Phe Ala Ser Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cga cgg aga cca gcc gct gct gcg agc cat cca gat aat 192
Arg Lys Lys Arg Arg Pro Ala Ala Ala Ser His Pro Asp Asn
50 55 60

caa gat cct gta cca gag caa ccc cca tcc atc acc aac agg aag cag 240
Gln Asp Pro Val Pro Glu Gln Pro Pro Ser Ile Thr Asn Arg Lys Gln
65 70 75 80

aaa cgc cag gag gaa cag gag aag gag gtg gag aag gag aca ggc cca 288
Lys Arg Gln Glu Glu Gln Glu Lys Glu Val Glu Lys Glu Thr Gly Pro
85 90 95

ggt gga tac cct cgc cgc aag gat tct tgc cac tgt tgt aca cgg acc 336
Gly Gly Tyr Pro Arg Arg Lys Asp Ser Cys His Cys Cys Thr Arg Thr
100 105 110

tca gga caa taa 348
Ser Gly Gln
115

<210> 32
<211> 115
<212> PRT
<213> Human immunodeficiency virus

<400> 32

Met Asp Pro Val Asp Pro Glu Met Pro Pro Trp His His Pro Gly Ser
1 5 10 15

Gln Pro Gln Thr Pro Cys Asn Lys Cys Tyr Cys Lys Arg Cys Cys Tyr
20 25 30

His Cys Tyr Val Cys Phe Ala Ser Lys Gly Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Arg Pro Ala Ala Ala Ser His Pro Asp Asn
50 55 60

Gln Asp Pro Val Pro Glu Gln Pro Pro Ser Ile Thr Asn Arg Lys Gln
65 70 75 80

Lys Arg Gln Glu Glu Gln Glu Lys Glu Val Glu Lys Glu Thr Gly Pro
85 90 95

Gly Gly Tyr Pro Arg Arg Lys Asp Ser Cys His Cys Cys Thr Arg Thr
100 105 110

Ser Gly Gln
115

<210> 33

<211> 15

<212> PRT

<213> Human immunodeficiency virus

<400> 33

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly
1 5 10 15

<210> 34

<211> 15

<212> PRT

<213> Human immunodeficiency virus

<400> 34

Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser Gln Pro Lys Thr
1 5 10 15

<210> 35
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 35

Trp Lys His Pro Gly Ser Gln Pro Lys Thr Ala Cys Thr Asn Cys
1 5 10 15

<210> 36
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 36

Ser Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys
1 5 10 15

<210> 37
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 37

Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe His Cys Gln
1 5 10 15

<210> 38
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 38

Tyr Cys Lys Lys Cys Cys Phe His Cys Gln Val Cys Phe Ile Thr
1 5 10 15

<210> 39
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 39

Cys Phe His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile
1 5 10 15

<210> 40
<211> 15

<212> PRT
<213> Human immunodeficiency virus

<400> 40

Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys
1 5 10 15

<210> 41
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 41

Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg
1 5 10 15

<210> 42
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 42

Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln
1 5 10 15

<210> 43
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 43

Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr His
1 5 10 15

<210> 44
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 44

Arg Arg Pro Pro Gln Gly Ser Gln Thr His Gln Val Ser Leu Ser
1 5 10 15

<210> 45
<211> 15
<212> PRT
<213> Human immunodeficiency virus

<400> 45

Gly Ser Gln Thr His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser
1 5 10 15

<210> 46

<211> 15

<212> PRT

<213> Human immunodeficiency virus

<400> 46

Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
1 5 10 15

<210> 47

<211> 15

<212> PRT

<213> Human immunodeficiency virus

<400> 47

Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp Pro Thr Gly Pro Lys
1 5 10 15

<210> 48

<211> 15

<212> PRT

<213> Human immunodeficiency virus

<400> 48

Gln Ser Arg Gly Asp Pro Thr Gly Pro Lys Glu Gln Lys Lys Lys
1 5 10 15

<210> 49

<211> 386

<212> PRT

<213> Mus musculus

<400> 49

Met Gly Ser Ile Gly Ala Ala Ser Met Glu Phe Cys Phe Asp Val Phe
1 5 10 15

Lys Glu Leu Lys Val His His Ala Asn Glu Asn Ile Phe Tyr Cys Pro
20 25 30

Ile Ala Ile Met Ser Ala Leu Ala Met Val Tyr Leu Gly Ala Lys Asp
35 40 45

Ser Thr Arg Thr Gln Ile Asn Lys Val Val Arg Phe Asp Lys Leu Pro
50 55 60

Gly Phe Gly Asp Ser Ile Glu Ala Gln Cys Gly Thr Ser Val Asn Val
65 70 75 80

His Ser Ser Leu Arg Asp Ile Leu Asn Gln Ile Thr Lys Pro Asn Asp
85 90 95

Val Tyr Ser Phe Ser Leu Ala Ser Arg Leu Tyr Ala Glu Glu Arg Tyr
100 105 110

Pro Ile Leu Pro Glu Tyr Leu Gln Cys Val Lys Glu Leu Tyr Arg Gly
115 120 125

Gly Leu Glu Pro Ile Asn Phe Gln Thr Ala Ala Asp Gln Ala Arg Glu
130 135 140

Leu Ile Asn Ser Trp Val Glu Ser Gln Thr Asn Gly Ile Ile Arg Asn
145 150 155 160

Val Leu Gln Pro Ser Ser Val Asp Ser Gln Thr Ala Met Val Leu Val
165 170 175

Asn Ala Ile Val Phe Lys Gly Leu Trp Glu Lys Ala Phe Lys Asp Glu
180 185 190

Asp Thr Gln Ala Met Pro Phe Arg Val Thr Glu Gln Glu Ser Lys Pro
195 200 205

Val Gln Met Met Tyr Gln Ile Gly Leu Phe Arg Val Ala Ser Met Ala
210 215 220

Ser Glu Lys Met Lys Ile Leu Glu Leu Pro Phe Ala Ser Gly Thr Met
225 230 235 240

Ser Met Leu Val Leu Leu Pro Asp Glu Val Ser Gly Leu Glu Gln Leu
245 250 255

Glu Ser Ile Ile Asn Phe Glu Lys Leu Thr Glu Trp Thr Ser Ser Asn
260 265 270

Val Met Glu Glu Arg Lys Ile Lys Val Tyr Leu Pro Arg Met Lys Met
275 280 285

Glu Glu Lys Tyr Asn Leu Thr Ser Val Leu Met Ala Met Gly Ile Thr
290 295 300

Asp Val Phe Ser Ser Ser Ala Asn Leu Ser Gly Ile Ser Ser Ala Glu
305 310 315 320

Ser Leu Lys Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn
325 330 335

Glu Ala Gly Arg Glu Val Val Gly Ser Ala Glu Ala Gly Val Asp Ala
340 345 350

Ala Ser Val Ser Glu Glu Phe Arg Ala Asp His Pro Phe Leu Phe Cys
355 360 365

Ile Lys His Ile Ala Thr Asn Ala Val Leu Phe Phe Gly Arg Cys Val
370 375 380

Ser Pro
385

<210> 50
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Ovalbumin-derived peptide (CFD)

<400> 50

Cys Phe Asp Val Phe Lys Glu Leu
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<210> 51
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Ovalbumin-derived peptide (KVV)

<400> 51

Lys Val Val Arg Phe Asp Lys Leu
1 5

<210> 52
<211> 8
<212> PRT
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<220>
<223> Ovalbumin-derived peptide (SII)

<400> 52

Ser Ile Ile Asn Phe Glu Lys Leu
1 5

<210> 53
<211> 8
<212> PRT
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<220>
<223> Ovalbumin-derived peptide (OVA1)

<400> 53

Glu Asn Ile Phe Tyr Cys Pro Ile
1 5

<210> 54
<211> 8
<212> PRT
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<220>
<223> Ovalbumin-derived peptide (OVA2)

<400> 54

Ala Glu Glu Arg Tyr Pro Ile Leu
1 5

<210> 55
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Ovalbumin-derived peptide (OVA3)

<400> 55

Asn Ala Ile Val Phe Lys Gly Leu

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